

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0034] with the following amended paragraph:

[0034] FIG. 6 illustrates an exemplary lookup table relating gray scale levels of blue colors having 64[[-bit]] gray scale levels, displayable by a liquid crystal display panel, to corresponding gray scale values.

Please replace paragraphs [0044], [0045], [0046], and [0047] with the following amended paragraphs:

[0044] In accordance with the principles of the present invention, a blue color having 64[[-bit]] gray scale levels may be displayable by the LCD panel 200. In one aspect of the present invention, the gray scale level of the blue color displayable by the LCD panel 200 may be increased from a 1st [[bit]] gray scale level to a 64th [[bit]] gray scale level. By increasing a gray scale value of the blue color displayed by the LCD panel 200, the gray scale level of the blue color displayed by the LCD panel 200 may be increased. Further, upon increasing the gray scale value of the blue color displayed by the LCD panel 200, the color reproducibility of the displayed blue color may be measured. Accordingly, the gray scale value at which the color reproducibility of the displayed blue color decreases may be detected using a lookup table 260.

[0045] For example, light having a blue color may be displayable by the LCD panel 200 at 64[[-bit]] gray scale levels. Moreover, color reproducibility of light displayed by the LCD panel 200 may be measured while increasing the gray scale value.

[0046] Referring to FIG. 6, color reproducibility of blue colored light may decrease when the gray scale level of the displayed blue color increases to the 52nd [[bit]] gray scale level. According to the lookup table 260, blue color is displayable by the LCD panel 200 at the 51st [[bit]] gray scale level immediately before it is displayable by the LCD panel 200 at the 52nd [[bit]] gray scale level. Therefore, blue color may be displayed by the LCD panel 200 at the 51st [[bit]] gray scale level immediately before the reproducibility of the displayed blue color decreases. Within the lookup table 260, a gray scale value of 50 corresponds to the 52nd [[bit]] gray scale level displayable by the LCD panel 200 (e.g., the displayed gray scale level where

color reproducibility of the blue color is lowered) up to the 64th [[bit]] gray scale level displayable by the LCD panel 200 (e.g., the highest gray scale level).

[0047] According to the principles of the present invention, the data processing unit 270 may compensate image information (DATA) applied by the timing control unit 220 in accordance with the gray scale values stored in the lookup table 260. For example, when the received image information (DATA) corresponds to a blue color displayable by the LCD panel 200 at a gray scale level greater than the 52nd [[bit]] gray scale level, the data processing unit 270 may compensate the gray scale value within the image information (DATA) in accordance with the gray scale value and levels stored in the lookup table 260. Accordingly, the data processing unit 270 may compensate the image information (DATA) such that a blue color may be displayed by the LCD panel 200 at a gray scale level equal to the 51st [[bit]] gray scale level. Therefore, the image information may be compensated to include a gray scale value corresponding to the 51st [[bit]] gray scale level. In one aspect of the present invention, the compensated image information (DATA) and the reference voltage (V_{REF}) may be applied by the data processing unit 270 and the power unit 230, respectively, to the data driving unit 250. In accordance with the control signal (CS) applied from the timing control unit 220, the driving timing of the gate and data driving units 240 and 250, respectively, may be controlled. As a result, the compensated image information (DATA) may be applied to the data lines of the LCD panel 200.

Please replace paragraphs [0052], [0053], and [0054] with the following amended paragraphs:

[0052] Referring to FIG. 8, a blue color having 64[[bit]] gray scale levels may be displayable by an LCD panel. In one aspect of the present invention, the gray scale level of the blue color displayable by the LCD panel 200 may be increased from a 1st [[bit]] gray scale level to a 64th [[bit]] gray scale level. By increasing the gray scale value of the blue color, the gray scale level of the blue color displayed by the LCD panel 200 may be increased. Further, upon increasing the gray scale value of the blue color displayed by the LCD panel, the color reproducibility of the displayed blue color may be measured. Accordingly, the gray scale value at which the color reproducibility decreases may be detected using a lookup table 360. According to the lookup table 360, the blue color is displayable by the LCD panel at the 51st

[[bit]] gray scale level immediately before it is displayable by the LCD panel 200 at the 52nd [[bit]] gray scale level. Accordingly, blue color may be displayed by the LCD panel at the 51st [[bit]] gray scale level immediately before the reproducibility of the displayed blue color decreases. Within the lookup table 360, a gray scale value of 50 corresponds to the 52nd [[bit]] gray scale level displayable by the LCD panel 200 (e.g., the color reproducibility of the blue color is lowered) up to the 64th [[bit]] gray scale level displayable by the LCD panel (e.g., the highest gray scale level).

[0053] Additionally, light having a green color may be displayed by the LCD panel at gray scale levels of 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, and 7. Moreover, light having a red color may be displayed by the LCD panel at gray scale levels of 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, and 6. In one aspect of the present invention, the gray scale levels of the green and red colors may be mixed with corresponding ones of the 52nd to 64th [[bit]] gray scale levels of the blue color. For example, when the received image information (DATA) corresponds to a blue color displayable by the LCD panel 200 at a gray scale level greater than the 52nd [[bit]] gray scale level, light having a green color may be displayed by the LCD panel at gray scale levels of 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, or 7 and/or light having a red color may be displayed by the LCD panel at gray scale levels of 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, or 6 may be mixed with the received image information to ensure reproducibility of the blue color displayable by the LCD panel.

[0054] According to the principles of the second aspect of the present invention, color reproducibility of light displayed by LCD panels may be measured as the gray scale level of the displayed light is increased. Accordingly, a gray scale value within the image information (DATA), corresponding to a gray scale level displayed by the LCD panel immediately before the color reproducibility is reduced, may be determined. Within the lookup table 360, a gray scale value of 50 corresponds to the 52nd [[bit]] gray scale level displayable by the LCD panel (e.g., the displayed gray scale level where color reproducibility of the blue color is lowered) up to the 64th [[bit]] gray scale level displayable by the LCD panel (e.g., the highest gray scale level).